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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,718	12/20/2001	Gerald P. Coffey	26200-11	9779

21130 7590 01/15/2003

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EXAMINER

PAULRAJ, CHRISTOPHER

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-2

Office Action Summary	Application No.	Applicant(s)	
	10/027,718	COFFEY, GERALD P.	
	Examiner	Art Unit	
	Christopher G. Paulraj	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8, 12, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 8 requires that said polymer encapsulates said vulcanized rubber particles. Since the parent claim already recites that the polymer coating covers the color coating (which in turn covers the vulcanized rubber particles), it is unclear how the dependent claim is different when the polymer "encapsulates" the particles.
4. Claim 12 recites the solid content of the pigment dispersion as about 25 to 65 %. However, it is unclear what type of percentage is being referred to the claim (weight, volume, etc.).
5. Claim 15 recites that the step of mixing and adding occur sequentially. Since the parent claim requires that the emulsion polymer is added to the color coated rubber particles (formed by the mixing step), it is unclear how the steps of mixing and adding could occur other than in the sequence recited in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Lussi et al. (U.S. Patent 5,571,588).

Lussi et al. discloses a floor covering material that comprises spheroidal resinous particles that can be made of rubber individually coated with a colorant, pigment or dye (col. 5, lines 54-66). The particles are then embedded in an uniform matrix layer (considered equivalent to the claimed polymer coating) (abstract). The matrix layer can be made of a polymer such as acrylates and methacrylates and can include additives such as UV absorbers and antioxidants (col. 4, lines 59-60 and col. 5, lines 20-26). The requirements of claims 2 and 3 are considered to be intended use recitations that confer no additional structural limitations upon the claimed surface material. The floor covering materials of Lussi et al. are considered to be capable of functioning as a playground surface or landscaping mulch.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 and 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lussi et al. in view of Jakubisin et al. (U.S. Patent 5,714,263).

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Lussi et al., while teaching that the spheroidal particles contain their own individual colorant, pigment, or dye (considered to satisfy the color coating requirement of the claims), do not disclose that the color coating comprises an extender, a nonionic and anionic surfactant, or that the color coating is formed from an aqueous pigment dispersion. Jakubisin et al. discloses a fall zone covering for playgrounds comprising rubber slivers that are encapsulated with an aqueous coating in which a modified acrylic polymer is mixed with color pigments and rheological additives (abstract). The additives can include thickeners (extenders) and nonionic and anionic surfactants (col. 2, lines 62-65). The rubber particles can be made from scrap tires (claim 5). The coated rubber tires are heated to promote tacky merging of the rubber and the coating (col. 2, lines 44-46). The volume of water is adjusted to provide a viscosity in the range of 85 K.U. to about 115 K.U. (col. 3, lines 5-10). The glass transition temperatures of acrylate and methacrylate polymers generally fall within the claimed range of - 70°C to 20°C.

One skilled in the art would have found it obvious to form the "individual colorant, pigment or dye," taught by Lussi et al. using an aqueous coating dispersion in the manner taught by Jakubisin et al. The motivation for doing so would have been to form a stable color coating on the surface of the rubber particles. In the absence of establishing criticality or unexpected results, one skilled in the art would have found it obvious to adjust the solid contents of the pigment coating to within the claimed range. The motivation for doing so would have been to optimize processability and coating viscosity of the pigment

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dispersion. One skilled in the art would also have found it obvious to adjust the amount of pigment dispersion based on the weight of the rubber particles to within the claimed range. The motivation for doing so would have been to optimize the color and opacity of the flooring material.


Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher G. Paulraj whose telephone number is (703) 308-1036. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703) 308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

cgp
January 9, 2003


Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700